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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/670,261

09/26/2000

David W. Chew

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09/24/2002

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EXAMINER

PEREZ, GUILLERMO

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/24/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/670,261

Applicant(s)

CHEW, DAVID W.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-17 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 11-15 is/are allowed.
- 6) ☒ Claim(s) 6,7,9,10,16,17,19,20 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I, claims 1-20 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that the coil is too delicate to be formed with the process described on the restriction mailed on March 1, 2002. This is not found persuasive because the structure of the coil in claims 1-20 does not specify any thickness or type of materials to be used. A coil like the one claimed in claims 1-20 can be made by forming the conductive band into a coil then inserting the coil into a liquefied insulating material, then let the insulating material be hardened.

The requirement is still deemed proper and is therefore made FINAL.

Claims 21-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 6-7, 9-10, 16-17, 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao (U. S. Pat. 6,040,650 which is a continuation in part of U. S. Pat. 5,982,069).

Referring to claim 6, Rao discloses a voice coil for a disk drive comprising:
a spiral winding of conductive material (figure 3) defining a flat band (figure 6) with a generally triangular shape (figure 3) with an open center, first and second active leg portions (31a, 31b) and an inactive leg portion (33), a first curved corner portion connecting the first and second active leg portions, a second curved corner portion connecting the first active leg portion with the inactive leg portion, and a third curved corner portion connecting the second leg portion with the inactive leg portion, the cross-sectional area of the band varying along its length (figure 3).

Referring to claim 7, Rao discloses that the cross-sectional area of each of the segments that define the inactive leg portion is smaller than the cross-sectional area of each of the remaining segments (figure 3 of the '069 patent).

Referring to claim 9, Rao discloses that the radius of curvature of the first curved corner portion is greater than the radius of curvature of the second and third curved corner portions (figure 3 of the '650 patent).

Referring to claim 10, Rao discloses that the radius of curvature of the second curved corner portion is equal to the radius of curvature of the third curved corner portion (figure 3 of the '650 patent).

Referring to claim 16, Rao discloses in combination with an actuator member in a disk drive, a voice coil secured to a face of the actuator member, the voice coil comprising a continuous spiral winding of wire defining a flat band with a generally triangular shape with an open center, first and second active leg portions and an inactive leg portion, a first curved corner portion connecting the first and second active leg portions, a second curved corner portion connecting the first active leg portion with the inactive leg portion, and a third curved corner portion connecting the second leg portion with the inactive leg portion, the cross-sectional area of the band varying along its length (as explained for claim 6 above).

Referring to claim 17, Rao discloses that the cross-sectional area of the segments that define the inactive leg portion is smaller than the cross-sectional area of the remaining segments (as explained above for claim 7).

Referring to claim 19, Rao discloses that the radius of curvature of the first curved corner portion is greater than the radius of curvature of the second and third curved corner portions (as explained above for claim 9).

Referring to claim 20, Rao discloses that the radius of curvature of the second curved corner portion is equal to the radius of curvature of the third curved corner portion (as explained above for claim 10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (U. S. Pat. 6,040,650 which is a continuation in part of U. S. Pat. 5,982,069) in view of Yamamoto (U. S. Pat. 4,728,390).

Rao substantially teaches the claimed invention except that it does not show that the first and second layers are polyimide.

Yamamoto discloses that the first and second layers are polyimide for the purpose of insulating the layers of conductive material (column 3, lines 3-14).

It would have been obvious at the time the invention was made to modify the coil of Rao and provide it with the insulating material disclosed by Yamamoto for the purpose of insulating the layers of conductive material.

Referring to claims 27-28, and 30, no patentable weight has been given to the method of manufacturing limitations (i. e. "securing", "photo-etching") since "even

though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Allowable Subject Matter

Claims 1-5 and 11-15 are allowed.

Claims 25-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone


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numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
September 19, 2002


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